

Statement of Reasons

HALIKOS DEVELOPMENTS PTY LTD – BERRIMAH FARM DEVELOPMENT

PROJECT

Halikos Developments Pty Ltd (the Proponent) submitted the Notice of Intent (NOI) for the Berrimah Farm Development (the Project) to the Northern Territory Environment Protection Authority (NT EPA) on 15 November 2016 for consideration under the *Environmental Assessment Act* (EA Act). The NOI outlined a mixed-use residential and commercial development at the Berrimah Farm site, located 11 km east of the Darwin CBD and 9 km north-west of Palmerston.

As described in the NOI, the Project would include:

- 2 800 dwellings to house 6 400 people across 112 ha
- educational facilities
- 50 000 m of retail shopping, dining, office and commercial uses along a precinct frontage to Stuart Highway
- open space – including parklands and land for community uses
- 3 ha of land for tourism uses, including motel/serviced apartments
- retirement living.

The Project would be staged (eleven stages) over a thirteen year period. The first stage is proposed to commence in March 2017 and would involve the construction of headworks to support Stage 1 in the western portion of the Project site. The final stage of the Project is planned to commence in 2030.

The NOI presented the Project based on an area plan that was exhibited under the Planning Act in October-November 2016. The Proponent submitted a revised area plan to the NT EPA on 15 February 2017 as a variation to the NOI as a result of further investigations and inquiries by the NT EPA.

CONSULTATION

The NOI has been reviewed as a notification under the EA Act in consultation with Northern Territory Government (NTG) advisory bodies, in accordance with clause 8(1) of the Environmental Assessment Administrative Procedures (EAAP).

JUSTIFICATION

Review of the NOI identified the following potential environmental impacts and risks associated with the proposed action:

- health and amenity impacts associated with land use conflicts

- noise
- site contamination
- impacts from changes to the quality and quantity of stormwater runoff
- heritage matters
- vegetation and biodiversity
- biting insects.

Conflicting land uses

The proposed area plan submitted with the NOI proposed to locate schools adjacent to land zoned General Industry (GI). Under the Northern Territory Planning Scheme a GI zone permits activities that may impact on the amenity of neighbouring uses, with GI defined indirectly as “likely to affect amenity of the surrounding locality by reason of emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit, oil or otherwise”.

In response to concerns raised about potential public health and amenity impacts arising from the siting of school sites adjacent to land zoned GI, the Proponent revised the area plan to the extent possible within site constraints to minimise the potential environmental impacts of industry on a sensitive land use (schools). The final area plan relocates one school site to the north-eastern section of the Project and replaces it with commercial use and open space, and replaces community use space with specialist commercial use (excluding childcare facilities).

The second school site was not relocated in the revised area plan and will be designated as community purpose in the area plan. However, the zoning of the site will remain as Future Development, meaning that any development in this location would require approval under the *Planning Act*. A new Planning Principle will be introduced into the area plan to ensure that any future proposals for this location, whether it be a development or a rezoning application, considers potential environmental impacts and risks associated with the adjacent GI zoning.

The revised area plan significantly reduces the exposure of sensitive uses to the GI zone, while the Planning Principle will ensure future development or rezoning on the community purpose land adjacent to GI or light industry zones gives appropriate consideration to potential environmental impacts and risks.

The NT EPA considers the revised area plan and Planning Principle adequately addresses the NT EPA’s land use interface concerns and reduces the potential environmental impacts and risks to the users of the Project to an acceptable level, and which can be managed satisfactorily under the provisions of the *Planning Act*.

The Project has demonstrated a need for greater guidance to planners and developers on how to avoid and minimise potential environmental impacts and risks from land use conflicts. The NT EPA has committed to finalising its draft Separation Distance Guidelines as a priority.

Noise

Noise from existing land uses and road corridors have the potential to impact on the amenity of future residents. Baseline noise studies conducted at the Project site concluded that residents living within 120 m of the Stuart Highway and Tiger Brennan Drive would likely be impacted due to traffic related noise. The Proponent has committed to mitigating the impacts of noise by utilising architectural design insulation and landscaping, and adopting a 100 m buffer between residential housing and areas likely to cause noise disturbance (i.e. traffic, industrial and commercial sites). Further modelling and assessment has been committed to determine appropriate noise attenuation and mitigation measures for residential and community use areas likely to be impacted by noise.

The NT EPA is satisfied that the Proponent has identified and assessed the potential sources of noise and committed to adequate assessment and management measures to reduce the potential impacts. The amendments to the area plan discussed above will further reduce potential noise impacts of on community use areas.

Site Contamination

The Project site has been largely assessed for site contamination in accordance with the *National Environment Protection (Assessment of Site Contamination) Measure 1999*. The results of the Phase 1 Assessment identified that some soils are contaminated (e.g. asbestos and concentrations of arsenic, unexploded ordnance, herbicides, pesticides, animal carcasses and hydrocarbons). Remediation work and audits by an independent, certified auditor will be required before affected land is suitable for its intended use.

The staged approach to the Project has been planned to allow for contaminated land to be remediated progressively and independently verified as the development proceeds. The NOI included a Plan of Development and incorporates timeframes for remediating each stage prior to the relevant stage being commenced. The Plan of Development has been prepared to ensure that the disturbance/remediation of contaminated sites avoids areas within and adjacent to areas cleared for development. Development stages 1-3 are within areas already covered by a Statement of Audit from an independent auditor.

Contaminated sites that are yet to be remediated would be signed and fenced to exclude public access. Further measures (e.g. bunding) would be constructed around contaminated sites to prevent runoff until remediation has been completed. A remediation plan has been prepared for areas of site contamination that sets out the treatment options and procedures for ensuring the remediation has been completed to an acceptable end point.

The NT EPA considers the Proponent has taken reasonable steps to identify the contaminated land in accordance with the *National Environment Protection (Assessment of Site Contamination) Measure 1999* and has committed to management measures that would reduce the potential impacts associated with site contamination. The NT EPA has provided recommendations to the Development Consent Authority (DCA) on this matter.

Stormwater management

The Project has potential to alter the quantity and quality of stormwater flow across and leaving the Project site. Construction and occupancy can lead to increased sediment loads

and nutrients/contaminants in surface water runoff and an increase in the volume of water leaving the site due to compaction and altered flows.

A Stormwater Drainage Strategy has been developed for the Project that aims to minimise offsite impacts by ensuring the capacity of downstream infrastructure is not exceeded and the quality of stormwater does not unreasonably impact the receiving environment. The Stormwater Strategy will be complemented by a stormwater management plan and an erosion and sediment control plan to be developed prior to any construction activities, based on best practice guidance.

Baseline surface water quality data has been obtained and the Proponent has committed to monitoring during construction and occupancy. A monitoring plan will be developed in consultation with relevant agencies, including the NT EPA, to allow the effectiveness of stormwater management to be reviewed.

The NT EPA is satisfied that with appropriate design and management strategies in place prior to construction and during occupancy, the potential impacts from stormwater runoff can be adequately managed.

Heritage matters

The World War II (WWII) RAAF Operations Room, located at the Project site, is a declared place under the *Heritage Act*. The archaeological report provided with the NOI identified two places of potential historic significance at the Project site - Machine Gun Emplacements (MGE1 and MGE2). The Machine Gun Emplacements sites are not currently listed or nominated for protection under the *Heritage Act* and it is unlikely these sites would be retained once the Project is developed.

The Proponent has committed to protecting the RAAF Operations Room from construction activity and preserving it as part of the new development. The Proponent has committed to recording the Machine Gun Emplacement sites and collecting artefacts if present. Advice received by the NT EPA from the Heritage Branch supports this approach.

The Construction Environmental Management Plan for each stage of the development will include a Heritage Management Plan detailing procedures to follow should any new heritage sites or objects be found.

The NT EPA is satisfied that the potential impacts of the Project on places/items with heritage significance have been adequately identified and avoided, where practicable.

Vegetation and biodiversity

The Project site is largely disturbed with little remnant vegetation. An area of pandanus (~10 ha) occurs along the eastern boundary of the Project site and would be retained as passive open space. The Project site contains three patches of the threatened cycad (*Cycas armstrongii*). Surveys of the site identified approximately 49 individuals (or clumps of) cycads. The population of cycads within the Project site is small compared to other populations in the region and the loss of 49 cycads from the site is unlikely to have a significant impact on the species. The Proponent has committed to salvaging cycads for use in landscaping, reducing the impact on the population.

Flora surveys of the Project sites identified 16 species of declared weeds with six of those classified as Class B species under the *Weeds Management Act*. Development of the Project site is likely to remove most weed infestations during construction activities. The Proponent has committed to preparing and implementing a Weed Management Plan for the site. Once the development is occupied the ongoing management of weeds will become the responsibility of individual landholders under the *Weeds Management Act*.

Biting insects

Biting insects at the Project site were assessed by the Medical Entomology Division, Department of Health. The assessment trapped 28 species of mosquito, including species with known disease potential in significant numbers, such as the *Anopheles* sp. and *Culex quinquefasciatus*. The south-western portion of the Project site was identified as an area prone to biting insect exposure and is located within a 1 km biting insect buffer recommended by the Department of Health. Potential future residents of the site are likely to be periodically affected by biting insects.

Construction activities during the development of the Project would be undertaken in a manner that avoids creating mosquito breeding habitat from pooling water and removing items that have the potential to hold water (e.g. drums/pipes). Inspections would be undertaken weekly during the Wet season to ensure mosquito breeding does not occur. The Project would be designed to ensure that stormwater infrastructure is designed in a manner that avoids the creation of mosquito breeding habitat and is consistent with the Department of Health's Guideline for preventing biting insect problems for new urban residential developments or subdivisions in the Top End of the NT. The Proponent will not be controlling/managing breeding habitat for biting insects outside the Project area, instead a clause will be placed into the contract of sale and by way of covenant on property titles informing residents about the presence of biting insect breeding areas.

RECOMMENDATIONS OF THE NT EPA

There are potential environmental impacts that require management under development approvals for each stage of the Project. The NT EPA has made the following recommendations to the DCA:

Recommendation 1

Prior to the commencement of works on each stage of the Berrimah Farm Development, a Construction Environmental Management Plan (CEMP) be submitted to, and approved by, the consent authority. The CEMP should include, but not be limited to, the following sub-plans:

- Noise Management Plan (considering the NT EPA Noise Guidelines for Development Sites)
- Heritage Management Plan
- Weed Management Plan
- Water Quality Monitoring Plan
- Dust Management Plan
- Stormwater Management Plan.

Recommendation 2

Prior to the commencement of works, an Erosion and Sediment Control Plan (ESCP) be submitted to and approved by the consent authority, on the advice of the Department of Environment and Natural Resources (DENR). All works relating to this permit are to be undertaken in accordance with the endorsed ESCP to the requirements of the Consent Authority, on advice from DENR.

Recommendation 3

For stages of the Berrimah Farm Development that have outstanding site contamination issues, it is recommended that development approval not be granted for a particular stage until Statement(s) of Audit have been received from a suitably qualified independent auditor (as defined by s68 of the *Waste Management and Pollution Control Act*) verifying land in that stage is suitable for the intended use. The Statement of Audit should form part of the development permit and be provided to the NT EPA.

DECISION

The proposed action, which was referred to the NT EPA by the Proponent, has been examined by the NT EPA, including further investigations and inquiries. As a result of the subsequent revision of the area plan, and commitments made in the on-going management plans, the NT EPA has decided that the potential environmental impacts and risks of the proposed action are not so significant as to warrant environmental impact assessment by the NT EPA under provisions of the EA Act. However, the proposed action will require further assessment and approvals under the *Planning Act* to ensure the environmental issues associated with the proposed action are effectively managed, and a Construction Environmental Management Plan to be prepared.

This decision is made in accordance with clause 8(2) of EAAP, and subject to clause 14A the administrative procedures are at an end with respect to the proposed action.



DR PAUL VOGEL
CHAIRMAN

NORTHERN TERRITORY ENVIRONMENT PROTECTION AUTHORITY

22 FEBRUARY 2017